

## C-20

# Efficacy of Somatostatin Analog (SSA) Monotherapy for Well-Differentiated Grade 3 (G3) Gastroenteropancreatic Neuroendocrine Tumors (NETs)



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**BACKGROUND:** Currently, there is no published data on the efficacy of SSAs for well-differentiated G3 NETs. Randomized trials have demonstrated a progression-free survival (PFS) benefit and limited response for lower grade 1-2 NETs, but the optimal therapy for metastatic/unresectable G3 NETs is unknown. We sought to evaluate the efficacy of SSAs in G3 NETs.

**METHODS:** We performed a retrospective analysis of Mayo Clinic patients treated with SSAs for metastatic /unresectable G3 NETs, querying data from 1992 - present. Inclusion criteria were: centrally reviewed pathology confirming well-differentiated morphology, G3 based on WHO classification, SSA monotherapy, and radiological data available to assess response. Patients who had prior lines of treatment were included as long they subsequently were treated with single-agent SSA. Poorly-differentiated tumors were excluded. The primary endpoint was PFS. Best overall response was determined by RECIST 1.1.

**RESULTS:** Ninety patient records were reviewed, with 16 meeting inclusion criteria (diagnosed 2014 – 2018). Median Ki-67 proliferative index was 26%.

Two patients (13%) had a partial response to SSA therapy, seven (44%) had stable disease, and seven (44%) had progressive disease. The estimated median PFS was 4.4 months (95% CI 3.1 – 24). Of the 9 patients with stable disease or partial response, the median time to progression was 16.3 months (95% CI 4.4 – 45). Three patients had stable disease > 23 months. Overall survival was not estimable. There was no association of Ki-67 index with PFS based on a proportional hazards model.

**CONCLUSION:** This is the first report on the efficacy of SSAs for G3 NETs. Although more than half (56%) of the patients in our series had at least stable disease, the PFS was modest at only 4.4 months. Given their favorable side-effect profile compared to cytotoxic chemotherapy, SSAs may present an attractive option to be further explored in a prospective fashion.

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